REMARKS

Claims 1 and 3 are amended. Claim 16 is added. Claims 2 and 6-13 were previously canceled. Currently claims 1, 3, 4, 5, 14 15 and 16 are pending in this application and are presented for the Examiner's reconsideration in view of the following comments.

Claims 1, 3, 4, 5, 14 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Publication 2004/0062398 to Unger (*Unger*) in view of U.S. Patent Publication 2004/0083177 to Chen *(Chen).*

Applicants respectfully disagree with the rejection under 35 U.S.C. §103(a). However, in the interest of furthering prosecution, claim 1 is amended to further define Applicants' invention.

Claim 1 now recites a method of recording scrambled digital data. Specifically, claim 1 recites that the descrambling key periodically changes value and that the at least one descrambling key of at least one of said plurality of control packets is <u>identical</u> to the at least one descrambling key of the preceding control packet. In addition claim 1 positively recites that control packets with a changed descrambling key are stored but control packets with an unchanged descrambling key are not stored. Stated differently, the step (c) table <u>only contains</u> descrambling keys that are <u>different from or changed</u> relative to the descrambling key in the preceding control packet. Descrambling keys that have <u>not changed</u> are <u>not stored.</u> In addition, the table contains <u>only</u> non-duplicate descrambling key values, a feature recited in claim 15. Thus, advantageously, Applicants' inventive method forms a short table where each entry relates to a change of descrambling key. Hence duplicated entries of identical values are eliminated which, in addition, minimizes table size and facilitates easy key acquisition.

In the current Action dated June 12, 2009, page 3, first paragraph, the Examiner states that,

"Unger teaches the data stream received in step comprises a plurality of control packets containing at least one descrambling key, <u>wherein the storage step is carried out only if the control packet identified in step is not already stored in said table</u> (multiple

packets have ECM and all are different with respect to a function of time or packet number) [0022], [0026]." *Underscore added for emphasis.*

However, the assertion that multiple packets have ECM and are all different with respect to time or packet number is irrelevant in view of Applicants' recited function relative to the descrambling key value.

The Examiner's June 12, 2009, page 3, assertion, is contrary to the Examiner's prior admission at page 3, first paragraph of the Final action, where the Examiner states,

"Unger does not teach not storing the control packet if it is already stored."

The Examiner's Final Action admission is correct. However, the June 12, 2009 assertion that *Unger* teaches storing only if not already in the table is erroneous and without support in *Unger*.

In Figure 2, block 32 *Unger* states

"BUILD INDEX TABLE NOTING POINTS IN TS WHERE
TCS BITS HAVE CHANGED".

At paragraph (0022) *Unger* describes Figure 2, but makes no mention of block 32. At paragraphs (0024/0025) *Unger* describes key stripping and index building but provides no description or explanation of the NOTING function in block 32. Nowhere does *Unger* show, disclose, or suggest Applicant's claim 1 step (c) feature of;

"storing in a table said control packets containing said
at least one descrambling key when said value changes;
and not storing said control packets containing said
at least one descrambling key when said value has not changed".

Thus, for at least the reasons stated above, claim 1 is patentable over *Unger*.

The Examiner also states that *Chen* teaches a series of ECM messages to encrypt a stream of data, where each key included in an ECM message is a different value key [0051], and may be stored [0050], [0051], [0053]. However, *Chen* is directed to video-on-demand programming and in particular to encryption encoding. Specifically *Chen* teaches storing a single encryption key value which is used repeatedly during a crypto period then replaced with a different encryption key value which is similarly used until that crypto period elapses. *Chen's* field of endeavour, encryption encoding, is quite different from Applicants' recording method which is directed to forming a table that avoids duplication of different key values. *Chen* stores a single key value for use multiple times which is

contrary to Applicants' who form a table of different key values where each key is used once. Hence Chen teaches away from Applicants' storing of a table of differing key values.

The Examiner further states,

> "It would have been obvious to one of ordinary skill in the art
> to use keys that are all different in the system of Chen with
> the encryption system of Unger because it is well known
> and further enhances the security of the encrypted stream."

Whether the Examiner's combination of references is obvious or useful is not relevant to Applicants' claim 1 invention which relates to a system where encryption key values are the same but change periodically. In addition Applicants' recite the formation and recording of a table of differing key values but which excludes value duplication.

The contrary teaching of *Chen* fails to remedy the deficiency in the disclosure of *Unger* because *Chen* fails to show, disclose, or suggest forming a table that contains only descrambling keys that are different from descrambling keys in preceding control packets.

Thus Applicants' claim 1 is not rendered obvious by the Examiner's combination of *Unger* in view of *Chen*. Withdrawal of the rejection under 35 U.S.C. §103(a) and the allowance claim 1 is respectfully requested.

Claims 3, 4, 5, 14 and 15 depend from claim 1 and, for the same reasons, are not obvious. Withdrawal of the rejection and the allowance of claims 3, 4, 5, 14 and 15 is respectfully requested.

New claim 16 recites a scrambled digital data stream in which a descrambling key value changes periodically and at times is identical to a value in a preceding control packet. In addition step (c) recites table creation in a manner fully supported in the specification but absent from both *Unger* and *Chen*. For reasons the same as discussed for claim 1 new claim 16 is also patentable over the combination of *Unger* and *Chen* thus the allowance of claim 16 is respectfully requested.

It is believed that the objections set forth in the Official Action have been fully met, and reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone Applicants' attorney in order to overcome any additional objections that the Examiner might have.

No additional fees are believed to be due, however, if there are any additional charges in connection with this application, the Examiner is authorized to charge Deposit Account No. 07-0832 therefor.

Respectfully submitted
Franck Abelard et al.

September 9, 2009   By___/Joseph J. Opalach/_____

Joseph J. Opalach
Registration No.: 36,229
(609) 734-6839

Patent Operations
Thomson Licensing LLC.
P.O. Box 5312
Princeton, New Jersey 08543-5312